



OFFICE MEMORANDUM

DATE: September 7, 1999

TO: Region Engineers
Region Associate Engineers - Delivery
Region Construction Engineers
Region Materials Supervisors/Engineers
TSC Managers
Resident/Project Engineers

FROM: C. Thomas Maki
Chief Operations Officer

Gary D. Taylor
Chief Engineer/Deputy Director
Bureau of Highway Technical Services

SUBJECT: Bureau of Highway Instructional Memorandum 1999-17
Reclaimed Asphalt Pavement (RAP)

The attached special provision for Reclaimed Asphalt Pavement (RAP), which was developed through the Michigan Department of Transportation/Michigan Asphalt Paving Association partnering committee, is approved and on the list of Frequently Used Special Provisions.

The purpose of this special provision is to provide guidelines for measuring the amount of RAP used in bituminous mixtures based on the total weight of the binder in the mixture as opposed to the total weight of the mixture.

Upon request from the contractor, it may be used for current construction projects. A work order must be prepared to add the special provision to the contract at no additional cost to the department.

If there are questions, please contact Mike Frankhouse, Bituminous Engineer at 517-322-5672.

Maki
Chief Operations Officer

Gary D. Taylor, Chief Engineer/Deputy Director
Bureau of Highway Technical Services

C. Thomas

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Attachment

Subject Index: Bituminous

BOHTS:C/T:MF:kab

cc:	Lansing C&T Division Engineers	MRBA	MRPA
	Lansing C&T Division Technicians	MAA	T. Hynes
	Real Estate, M. Frierson	MAPA	B. MacNall
	Design Division, P. Miller	MCA	
	Maintenance Division, C. Roberts	MCPA	
	Traffic & Safety Division, J. O'Doherty	FHWA	
	T. Maki	AUC	
	G. Taylor	CRAM	
	J. Culp	MAA	
	J. Klee	A. Suber	
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	B. Jay	P. O'Rourke	
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	R. Knapp	S. Cook	
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MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
RECYCLED BITUMINOUS MIXTURE

C&T:GMM

1 of 1

REVISED: 05-18-99
C&T:APPR:DLS:MF 12-18-98

Subsection 501.02A2c&d.-are deleted in their entirety and replaced by the following:

c. **Mix Design.** The Contractor shall submit materials for Recycled Bituminous Mixture Design according to the Procedure Manual for Submitted and Superpave Mix Design Processing.

d. **Reclaimed Asphalt Pavement(RAP)Percentages and Binder Grade Selection.** The binder grade selection for use in recycled mixtures is divided into the following three categories. The percentages shown are the contribution of RAP binder to the total binder, by weight, in the mixture:

Tier 1 (0% to 17% RAP binder by weight of the total binder in the mixture)

No binder grade adjustment is made to compensate for the stiffness of the asphalt binder in the RAP.

Tier 2 (18% to 27% RAP binder by weight of the total binder in the mixture)

The selected binder grade for the asphalt binder is one grade lower for the high temperature than the binder grade required for the specified project mixture type. For example, if the specified binder grade for the mixture type is PG58-28, the required grade for the binder in the recycled mixture would be a PG52-28.

The asphalt binder grade can also be selected using a blending chart for high and low temperatures. The binder selection will be established based on the Contractor's provided RAP test data.

Tier 3 (> 28% RAP binder by weight of the total binder in the mixture)

The binder grade for the asphalt binder is selected using a blending chart for high and low temperatures. The binder selection will be established based on the Contractor's provided RAP test data.

e. **Measurement and Payment.** All costs associated with using RAP in bituminous mixtures are included in the contract unit price for the associated bituminous mixture.